

316L/SKR-NF

For welding steels such as Outokumpu	EN	ASTM	BS	NF	SS
4436	1.4436	316	316S33	Z7 CND 18-12-03	2343
4432	1.4432	316L	316S13	Z3 CND 17-12-03	2353
4429	1.4429	31653	316S63	Z3 CND 17-12 Az	2375
4571	1.4571	316Ti	320S31	Z6 CNDT 17-12	2350

Standard designations

EN 1600 (E 19 12 3 L R)*
AWS A5.4 E316L-16

*Ni and Mo higher than standard

Characteristics and welding directions

AVESTA 316L/SKR-NF is a Cr-Ni-Mo electrode for all position welding of austenitic stainless steels. The carefully controlled chemical composition gives a fully austenitic weld metal with very good toughness down to -196°C .

Welding data

DC+ or AC	Diam., mm	Current, A
	2.50	50 – 75
	3.25	70 – 100
	4.00	100 – 140

Weld deposit data

Metal recovery approx. 100 %.

Chemical composition, wire (typical values, %)

C	Si	Mn	Cr	Ni	Mo
0.03	0.4	2.3	17.5	13.8	2.5

Ferrite 0 FN

Mechanical Properties

	Typical values (IIV)	Min. values EN 1600
Yield strength $R_{p0.2}$	430 N/mm ²	320 N/mm ²
Tensile strength R_m	560 N/mm ²	510 N/mm ²
Elongation A_5	37 %	25 %
Impact strength KV -196°C	42 J	
Lateral expansion	0.60 mm	

Interpass temperature: Max. 150°C .

Heat input: Max. 2.0 kJ/mm

Heat treatment: Generally none. In special cases quench annealing at $1020 - 1080^{\circ}\text{C}$.

Structure: Fully austenitic.

Scaling temperature: Approx. 850°C (air).

Corrosion resistance: Good resistance to general corrosion.

Approvals: –

Welding positions

